

IN THE CLAIMS

Current Listing Of Claims:

1. (Currently Amended) A method for minimizing precipitation of developing reactant by lowering a sudden change in pH, said method comprising:

applying a charge of developer fluid onto a polymer layer on a substrate at a plurality of locations on the surface of the polymer layer;

developing at least a portion of a the polymer layer on a substrate with a charge of developer fluid; then

permitting at least a portion of said charge of developer fluid to dwell on said polymer so as to controllably minimize a subsequent sudden change in pH; and then

rinsing said polymer with a charge of another fluid.

2. (Original) The method of claim 1, further comprising spinning said substrate at an angular velocity sufficient to remove a portion of said developer fluid from said substrate.

3. (Original) The method of claim 2, wherein spinning said substrate includes spinning said substrate at an angular velocity, and for a duration, sufficient to remove a majority of said developer fluid.

4. (Original) The method of claim 1, wherein developing at least said portion of said polymer on said substrate includes developing at least a portion of an exposed photoresist polymer on said substrate.
5. (Original) The method of claim 1, wherein developing at least said portion of said polymer on said substrate includes developing said at least a portion of said polymer on a semiconductor wafer substrate.
6. (Original) The method of claim 1, wherein rinsing said polymer with said charge of another fluid includes rinsing said polymer with deionized water.
7. (Original) The method of claim 1, further comprising providing a laminar airflow field in a developer fluid module in which said substrate is located.
8. (Currently Amended) A method for minimizing precipitation of developing reactant by lowering a sudden change in pH, said method comprising:
applying a charge of a first developer fluid having a first developer fluid chemistry onto a polymer layer on a substrate;
developing at least a portion of a the polymer layer on a substrate with an initial charge of a developer fluid; then

rinsing said polymer with an additional a charge of said a second developer fluid having a second developer fluid chemistry so as to controllably minimize a subsequent sudden change in pH;

wherein the first developer fluid chemistry and the second developer fluid chemistry are different; and then

rinsing said polymer with a charge of another a rinse fluid having a fluid chemistry different than either the first or second developer fluids.

9. (Original) The method of claim 8, wherein developing at least said portion of said polymer on said substrate includes developing at least a portion of an exposed photoresist polymer on said substrate.

10. (Original) The method of claim 8, wherein developing at least said portion of said polymer on said substrate includes developing said at least a portion of said polymer on a semiconductor wafer substrate.

11. (Currently Amended) The method of claim 8, wherein rinsing said polymer with said charge of another rinse fluid includes rinsing said polymer with deionized water.

12. (Original) The method of claim 8, further comprising providing a laminar airflow field in a developer fluid module in which said substrate is located.

13-43 (Canceled)

44. (New) The method of claim 1, wherein the developer fluid and the other fluid for rinsing are applied with a low impinging force.

45. (New) The method of claim 6, wherein the deionized water for rinsing is dispensed in a fine disbursement.

46. (New) The method of claim 8, wherein the charge of the first developer fluid onto the polymer layer is applied on a plurality of locations on the surface of the polymer layer.

47. (New) The method of claim 11, wherein the deionized water for rinsing is dispensed in a fine disbursement.

48. (New) The method of claim 8, wherein the first developer fluid is applied with a low impinging force.

49. (New) A method for minimizing precipitation of developing reactant by lowering a sudden change in pH, said method comprising:

providing a laminar airflow field in a developer fluid module in which a substrate is located;

applying a charge of a first developer fluid having a first developer fluid chemistry onto a polymer layer on the substrate;

developing at least a portion of the polymer layer; then

rinsing said polymer with a charge of a second developer fluid having a second developer fluid chemistry so as to controllably minimize a subsequent sudden change in pH;

wherein the first developer fluid chemistry and the second developer fluid chemistry are different;

wherein the charge of the first and second developer fluids dispensed onto the polymer layer are applied at a plurality of locations on the surface of the polymer layer; and then

rinsing said polymer with a charge of a rinse fluid having a fluid chemistry different than either the first or second developer fluids;

wherein the rinse fluid dispensed onto the polymer layer is applied at a plurality of locations on the surface of the polymer layer.

50. (New) The method of claim 49, wherein the first and second developer fluids, and the rinse fluid are applied with a low impinging force, so as to reduce damage to the patterned polymer layer.

51. (New) The method of claim 49, wherein the rinse fluid comprises deionized water and is dispensed in a fine disbursement.